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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,976	05/22/2006	Jong Chul Bang	9988.327.00	3738

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MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER

RIGGLEMAN, JASON PAUL

ART UNIT	PAPER NUMBER
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1711

MAIL DATE	DELIVERY MODE
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05/20/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,976	Applicant(s) BANG, JONG CHUL	
	Examiner JASON P. RIGGLEMAN	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,8-10 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8-10 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Foreign Reference</u> . |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/10/2010 has been entered.

Status of Claims

2. Applicant's reply filed on 3/10/2010 is acknowledged. Current pending claims are 1-2, 5, 8-10, and 13. Claims 3-4, 6-7, 11-12, and 14-19 have been cancelled. Claim 1 is amended.

Response to Arguments

3. Applicant's arguments, filed 3/10/2010, have been considered. The applicant's arguments with respect to the claims are moot in view of the new grounds of rejection (necessitated by amendment). The claim objections are withdrawn in view of the re-formatted claims. The 112, second paragraph, rejection of claim 1 is maintained since the structural features of the connecting portion are not clearly claimed by the applicant.

Claim Objections

4. Claim 8 objected to because of the following informalities: the claim status is (Previously Presented) and not (Presently Amended). Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The structure of the "connecting portion" is not understood. Note: this appears to be critical to the applicant's invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-2, 5, 8-10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sassone (German Patent Publication No. DE19650861) in view of Riller et al. (German Patent Publication No. 3728608).

9. Sassone teaches an aqua stopping device (1A) for a washing device having a valve body (valve housing 2A) including a passage (conduit 3A) formed within. Valves (solenoid valve 4a) are aligned to open and close the passage. A signal wire (electrical cable 21A) is connected to a terminal of the valves. A connecting wire (terminal ends 37) is connected to the signal wire and extends outward a predetermined distance. A connecting portion (near 37) is provided at a portion connecting the signal wire (electrical cable 21A) to the connecting wire (terminal ends 37) – where the wires are connected, Fig. 4. A “filler” (coat body 30) encloses the connecting portion. A connecting tube (3A) is attached to a lower portion of the valve body for passing wash water there through. An outer tube (element 33) is disposed around an exterior of the

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connecting tube for enclosing the connecting tube. The thermoplastic material of the filler (30) is injection molded -- see English machine translation.

10. Sassone does not teach that an empty outer case and the filler and that the “inner case” is the positioned the filler, however, Riller et al. teaches outer case which surrounds the inner case and is connected to the inner case, Fig. 2. The device of Riller et al. has an empty space formed between the outer case and “inner case” (inner case surrounds the electrical components – connection). It can be seen in the Figure that the inner case and outer case are isolated – note the bold outline of the “inner case”. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sassone with Riller et al. to create a wash-stopping device which had room to install additional components as needed inside the outer case to achieve the expected result and to connect the inner to outer case to improve stability to achieve the expected result. As a result, the use of “filler” at only the connecting portions would increase the amount of space inside the modified device to achieve the expected result of having additional room for more components. The positioning of the “filler” away from the valves is arbitrary and not critical.

11. Sassone, as modified by Riller, above, does not teach that the valves are in the “empty” outer case and the connecting portion in the “filled” inner case (that they are partitioned into modules) ; however, it has been held that making elements separable, absent any showing of criticality, is not patentable (*In re Dulberg* 129 USPQ 148). The combination of Sassone, as modified by Riller, appears to function in the same way as the claimed invention and no criticality has been demonstrated by the applicant's design. The applicant has shown no criticality for this design feature. It would have been obvious to modify Sassone, as modified by

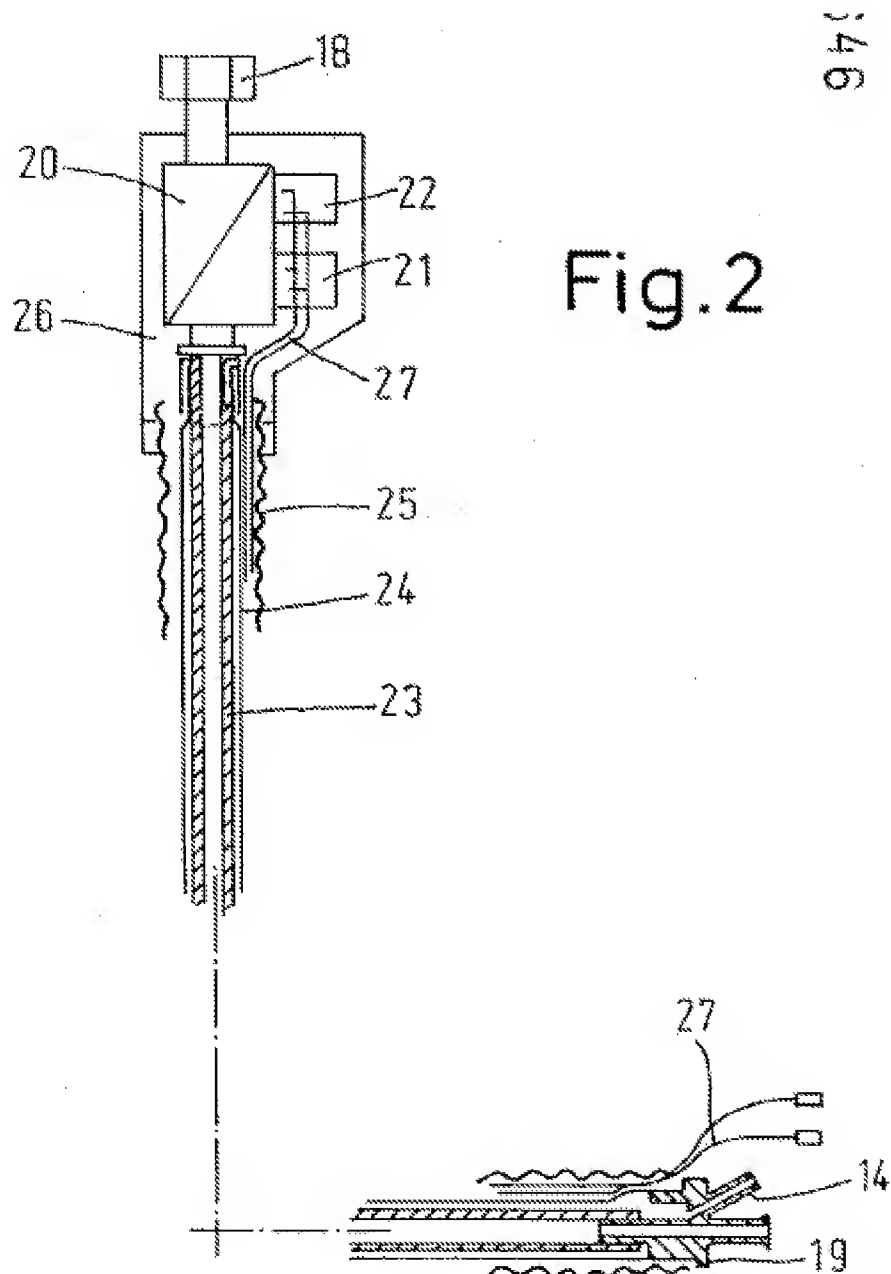
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Riller, above, since the device would operate the same and would not be patentably distinct.

Further, the "inner case" of the invention is merely a wall which forms a volume acting as a mold for the injection molding of the filler. The "filler" need not be injected but merely present to encapsulate the electrical wire.

12. Claims 1-2, 5, 8-10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gumm et al. (EP Patent Publication No. EP0293031) in view of Sassone (German Patent Publication No. DE19650861).

13. Gumm et al. teaches an aqua stopping device for a washing device having a valve body including a passage (conduit 3A) formed within. Valves (21, 22) are aligned to open and close the passage. Signal wires (27) are connected to a terminal of the valves. A connecting tube (23) is attached to a lower portion of the valve body for passing wash water there through. An outer tube (24) is disposed around an exterior of the connecting tube for enclosing the connecting tube, see Fig. 2, inserted into text, below.



14. Gumm et al. does not teach the use of one wire splitting into two wires; however, it has been held that an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). It would have been obvious to use one wire (27) to conserve materials – electrical wire. Obviously, the closer to the solenoid terminals – the more wire is conserved. This introduces one problem;

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however, which is preventing liquid from contacting the wires. Once again, it is well known by Sassone to use injection molded plastic “filler” to insulate and waterproof the electrical split. Utilizing the minimum of needed “filler” would place it at the split area only. It would have been obvi

15. This leads to the inventive feature of the applicant’s -- inner case. Gumm et al. as modified by Sassone et al. does not teach an inner case; however, the applicant has not established any criticality to the feature. It appears to be an artifact from the manufacturing process used to install the filler and is not relevant in the final product. The combination of Gumm as modified by Sassone, as modified above, appears to function in the same way as the claimed invention and no criticality has been demonstrated by the applicant's design. The applicant has shown no criticality for this design feature. Further, the “inner case” of the invention is merely a wall which forms a volume acting as a mold for the injection molding of the filler. The “filler” need not be injected but merely present to encapsulate the electrical wire.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON P. RIGGLEMAN whose telephone number is (571)272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit 1711

Jason P Riggleman
Examiner
Art Unit 1711

/J. P. R./
Examiner, Art Unit 1711